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1SS319-TP
Schottky Barrier Rectifiers

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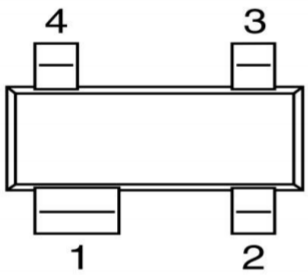
Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Switching
- Low Leakage Current
- RoHs Product

Applications

- surface mount schottky barrier rectifier
- Buck and Boost dc−dc Converters
- Low Voltage High Frequency Switching Power Supply
- Low Voltage High Frequency Invers Circuit
- Low Voltage Continued Circuit and Protection Circuit



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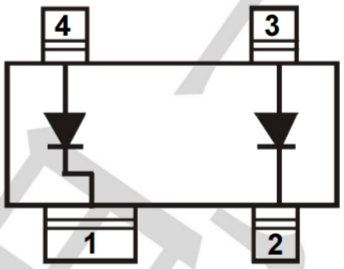


Device Schematic

Absolute Maximum Ratings (TA=25°C unless otherwise specified)

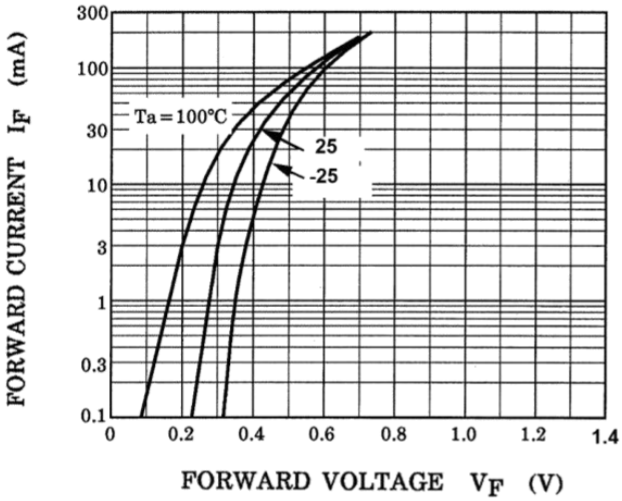
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	45	V
Reverse voltage	V_R	40	V
Maximum average forward rectified current	I_F	100	mA
Non-repetitive Peak Forward Surge Current@t=8.3ms	I_{FSM}	300	mA
Power Dissipation	Pd	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	620	℃/W
Operating Junction Temperature Range	T_J	−55 to +150	°C
Storage Temperature Range	T_{STG}	−55 to +150	°C

Device mounted on an FR4 PCB, single-sided copper, tin-plated, mounting pad for cathode 1 cm^2.

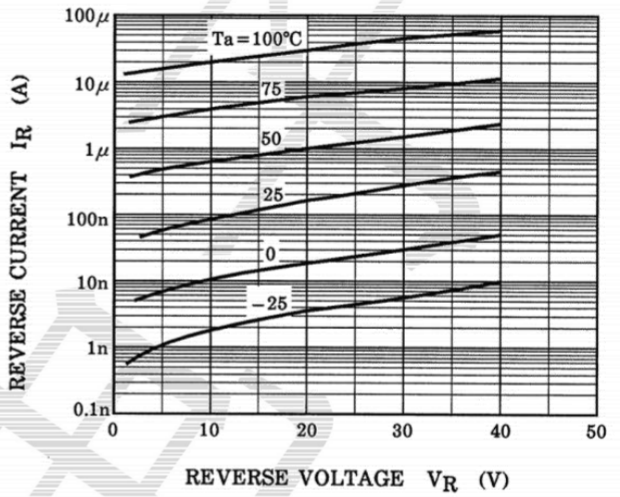
Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse breakdown voltage	$V_{(BR)}$	40	--	--	V	I_R=100μA
Forward Voltage	VF	--	0.29	--	V	IF=1mA
		--	0.36	--	V	IF=10mA
		--	0.55	0.6	V	IF=100mA
Reverse Leakage	I_R	--	--	5	uA	V_R=40V
Capacitance terminals	C_T	--	18	25	pF	VR = 0 V, f = 1 MHz

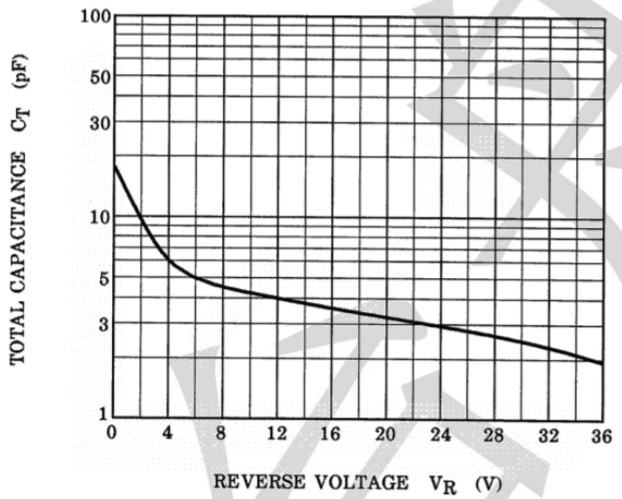
Typical Electrical Characteristic Curves



I_F - V_F



I_R - V_R



C_t - V_R

Package Outline Dimensions (unit: mm)

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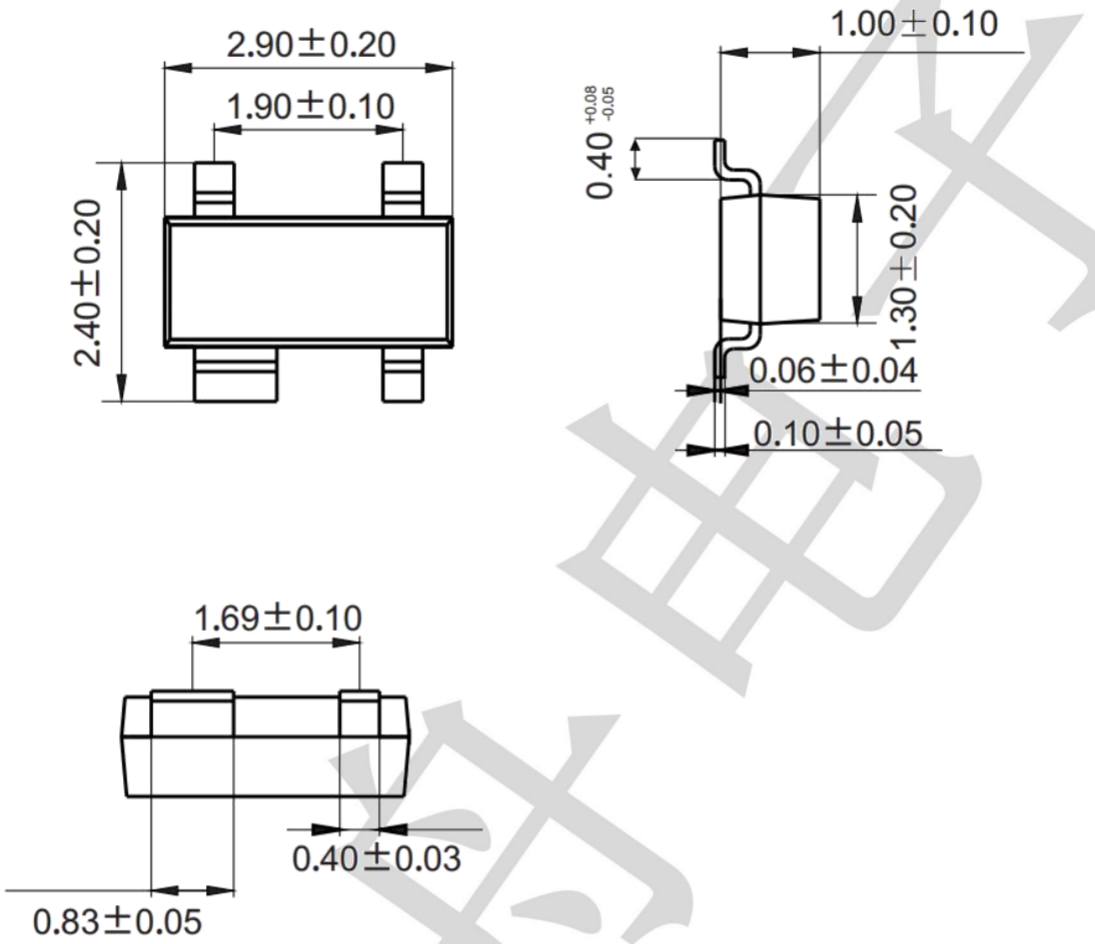

Mounting Pad Layout (unit: mm)